



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/782,751	02/12/2001	Stein A. Lundby	000411	9685
23696 7590 11/02/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER CHAN, RICHARD	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 11/02/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary

Application No.

09/782,751

Applicant(s)

LUNDBY, STEIN A.

Examiner

Richard Chan

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/14/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 8/15/07 have been fully considered but they are not persuasive.

Regarding applicant's arguments regarding the Moon reference not being able to disclose that the base station receives a signal from a mobile station via a reverse link common channel, and transmits to the mobile station a power control command for controlling a transmission power of the reverse link common channel according to the strength of the received signal, the applicant argues that that Moon reference is entirely unlike claim 1 of the present invention, in which the power control unit in a remote station apparatus generates a power control instruction which includes one or more commands configured to adjust a power control instruction which includes one or more commands configured to adjust a transmit power of the common channel at a base station.

The examiner respectfully disagrees with the applicant's arguments. The points the applicant once again to the Moon reference, specifically paragraph [0022]. The Moon reference specifically states "For the power control of the reverse link common channel, the base station receives a signal from a mobile station via the reverse link common channel, and transmits to the mobile station a power control command for controlling a transmission power of the reverse link common channel according to a received signal strength.

Regarding applicant's arguments regarding claim 7, wherein the Chen reference does not disclose adjusting and/or determining a power level for transmission for a

Art Unit: 2618

power control instruction, the examiner discloses the preceding limitations were found in the Knutsson reference.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashem et al (US 6,330,456) in view of Moon et al (US 2004/0066772).

Regarding claim 1, Hashem teaches a remote station apparatus (col. 3, lines 24-26) comprising: a link quality estimation unit operative to generate a link quality estimate in response to a first power control instruction (col. 3, lines 64-67); and a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a second power control instruction in response to the link quality estimate (col. 4, lines 1-35).

However, Hashem fails to specifically disclose said power control instruction is received on a common channel wherein the second power control instruction is used to adjust the transmit power of the common channel at a base station.

However, in related art, Moon discloses a shared channel structure for use in a forward link power control scheme, in other words, a power control instruction received

Art Unit: 2618

on a common channel wherein the second power control instruction is used to adjust the transmit power of the common channel at a base station (see Moon, abstract & ¶ 0014 & 0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include said power control instruction to be received on a common channel with Hashem's existing power control scheme in order to reduce the space needed.

Regarding claim 2, Hashem teaches the remote station apparatus controls transmission power in response to the first power control instruction (col. 4, lines 28-32).

Regarding claim 3, Hashem teaches the remote station apparatus transmits the second power control instruction (col. 4, lines 42-47).

Regarding claims 7 and 12, Hashem teaches a method for power control in a wireless apparatus operative in a communication system having a forward link and a reverse link (col. 3, lines 64-67), the system transmitting power control bits, on a forward link channel, the method comprising: measuring a SNR of at least one power control bit for controlling a reverse link; and determining a power control decision for the forward link based on the SNR (col. 3, lines 23-30 & col. 4, lines 1-35).

Art Unit: 2618

However, Hashem fails to specifically disclose said power control instruction is received on a common channel wherein the second power control instruction is used to adjust the transmit power of the common channel at a base station.

However, in related art, Moon discloses a shared channel structure for use in a forward link power control scheme, in other words, a power control instruction received on a common channel wherein the second power control instruction includes one or more commands to configure to adjust a transmit power of the common channel at a base station (see Moon, abstract & ¶ 0014 & 0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include said power control instruction to be received on a common channel with Hashem's existing power control scheme in order to reduce the space needed.

4. Claims 4-6, 8, 9, 11, 17, 18, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knutsson et al (WO 99/53630) in view of Chen et al (US 2002/0105929).

Regarding claims 4, 6, 8, 23, and 26 Knutsson teaches a base station apparatus (element MS) comprising: and a determination unit operative to determine a received power control instruction for base station transmission on a channel (pg. 5, lines 25-27); and an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power level of the power control instruction (pg. 5, lines 27-29).

Art Unit: 2618

However, Knutsson fails to specifically disclose said power control instruction is received on a common channel.

However, in related art, Chen discloses a shared channel structure for use in a forward link power control scheme, in other words, a power control instruction received on a common channel (see Chen, abstract & ¶ 0106 & 0110).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include said power control instruction to be received on a common channel with Knutsson's existing power control scheme in order to reduce the space needed.

Regarding claims 5, Knutsson teaches a base station apparatus (element BS) comprising: a control processor (inherent) for power control of transmission of power control instructions on a channel, wherein a transmission power level of the power control instruction is initially set to a reference value (pg. 9, lines 5-7); and an amplifier (inherent) operative to adjust a power level of the power control instructions (pg. 9, lines 1-5 & pg. 10, lines 11-15).

However, Knutsson fails to specifically disclose said power control instruction is received on a common channel.

However, in related art, Chen discloses a shared channel structure for use in a forward link power control scheme, in other words, a power control instruction received on a common channel (see Chen, abstract & ¶ 0106 & 0110).

Art Unit: 2618

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include said power control instruction to be received on a common channel with Knutsson's existing power control scheme in order to reduce the space needed.

Regarding claim 11, 18, and 24 Knutsson teaches a transmission power level of the power control instruction is initially set to a reference value (pg. 9, lines 5-9)

Regarding claims 13, 19, & 25 Knutsson discloses the method for power control in a remote station (element MS) apparatus, the method comprising generating a link quality estimation (pg. 5, lines 25-27); in response to a first response to a first power control instruction received; and generating a second power control instruction in response to the link quality estimate, wherein the second power control instruction includes one more commands configured to adjust a transmit power on the common channel at a base station. (pg. 5, lines 27-29).

However, Knutsson fails to specifically disclose said power control instruction is received on a common channel.

However, in related art, Chen discloses a shared channel structure for use in a forward link power control scheme, in other words, a power control instruction received on a common channel (see Chen, abstract & ¶ 0106 & 0110).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include said power control instruction to be received on

Art Unit: 2618

a common channel with Knutsson's existing power control scheme in order to reduce the space needed.

Regarding claim 14, 20, Knutsson and Chen combined discloses the method of claim 13, further comprising controlling transmission power in response to the first power control instruction. (pg. 5, lines 25-27)

Regarding claim 15, 21 Knutsson and Chen combined discloses the method of claim 13, Knutsson continues to disclose the method further comprising transmitting the second power control instruction. (pg. 5, lines 27-29)

5. Claims 16 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knutsson et al (WO 99/53630) in view of Chen et al (US 2002/0105929) in further view of Hashem et al (US 6,330,456).

Regarding claim 16, 22, Knutsson and Chen combined disclose the method of claim 13, however neither reference wherein the link quality estimation is a SNR. (col. 3, lines 23-30 & col. 4, lines 1-35).

The Hashem reference however discloses wherein the link quality estimation is a SNR. 2002/0105929

It would have been obvious to one of ordinary skill in the art to implement wherein the link quality estimation is a SNR as disclosed by Hashem with the method of

Art Unit: 2618

power control as disclosed by Knutsson and Chen combined in order to calculate the amount of noise distorting the signal to recalculate the amount of power necessary to power the transmitter signal.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Chan
Art Division 2618
10/22/07



NAY MAUNG
SUPERVISORY PATENT EXAMINER